

Drawbacks

The following refers to packaging the portable product which is produced from a liquid and made of cardboard or the like with side walls, a side wall cover and hinges and two wall parts which are brought to one another by folding lines.

Such packaging is known in various embodiments and is used in particular for powder detergents and cleaning systems as well as for liquid-shaped disinfecting detergent.

With such packages, from which the product is removed as soon as a film or with extremely sparse or thin film, as into the dosing unit which forms the inside cover there is an additional outer frame made of cardboard, corrugated board or the like which supports the mechanical stability of the packaging and at the same time serves as a buffer when the package is opened in order to facilitate simple removal of the opened top.

The disadvantage of such packaging obviously is that along with the packaging proper, which is formed as a folded box, a second, additional cardboard corrugated board or other material layer is required, which naturally makes manufacturing more expensive and complicated, and this leads to more contents loss and weight increase. Further, the known packaging often cannot be opened fully and completely, as product residue, in particular of powder detergent and cleaning system, remains between the two inner layers. If the known packaging is broken down and sent for reuse paper recycling, etc., which in the whole is undesirable, then product residue, which comes loose between the two outer layers during the breakdown process, contaminates the recycling or subsequently enters the recycling process, thus hindering it.

It is the aim of the invention, therefore, to improve such packaging, in particular with regard to stability and recyclability. It features certain modifications and has especially the object, as will be described hereinafter,

This task is accomplished in one motion with the movement of the type described in the first, with the type part which is hinged. On a folding flap on a side wall is provided at least a portion of the top edge with a border, the folding flap and in the vertical region at the top end it is applied with an opening and closing flap, while the opposite side wall is supplied with a return flap in the region of the opening and closing flap.

With such packaging the disadvantages that arise in the known packaging are avoided in a simple and certain manner, even in dispensing with an additional inner frame and mounting a container, such as fitting a soap package into a single cardboard box, one-piece frame in which product residues can easily be removed. At the same time, the packaging costs are drastically reduced, as the frame additional inner frame is omitted. The movement is simplified, as the previous return frame was no longer to be included in the folded box. And on the other hand, the break-down of the packaging after use and complete recycling is simplified, and waste paper generation is considerably reduced.

Finally, the opposite side wall is provided with a partly adhered flap for the formation of the provided top-on flap. In this way in an extremely simple and economical way, a lock-in flap can be provided for closure of the opening and closing flap. This can be implemented especially simply by superimposing a flap from the side wall, which is folded once and partly adhered to the opposite side wall, and then provided with a slot or the like for the formation of an insertion slot.

In the especially advantageous embodiment of the invention, the opening and closing flap is partly adhered to the opposite side wall on the outside, while the opposite side wall in the region of the extension and the folding box between the side wall and the partly adhered flap features perforations or the like for tearing off the adhered side wall region. In this way, during opening of the top part, a portion region on the upper edge of the opposite side wall, where the lock-in flap is located, is torn off and the

such as flap formed by the folding and unfolding of the elongated flap is opened and the covering side is closed.

It is a further advantage, it is provided that the opening side wall features a movable partition wall, is not opened at the addition and the folding time, and the opening and closing flap but it forms a spatially restraining mechanism. The result is that within the normal use of the top part are turn off, portions of the opposite side wall at the upper edge will remain and a more stable holding of the packaging, even in the upper region. In addition, this facilitates the opening of the back-on flap and the operation of the opening and closing flap, in particular when the folding and the unfolding of the opening and closing flap are uniformly executed.

Further, the invention advantageously provides that the area top of the top part is formed as a continuous layer which splits the continuous layer during tearing to serve as a support and contact surface to secure the opened and fixed region of the top part. During execution of the opened top part, the own split membrane layer is movable and overlap one another, which in connection with the movement of the opening and closing flap is the back-on flap lead to very good protection of the packaging. The resulting split membrane layer, in combination with the fixed, partially unfolded flap of the back-on flap serves the function of an inner frame or roller, which is useful for a simple and so complete as possible on to use of the packaging.

In order to facilitate the transport of the packaging and the operation of the opening and closing flap in the back-on flap, it is provided that the opening and closing flap features a rim which serves to provide the outside.

It is a further advantage, it is provided that top of the side walls is at least partly formed as a separate. This has the advantage, especially when the side wall region are at least partly subjected to use.

embodiment which the invention is an singly advantageous embodiment in which is provided for, that the side wall includes the features of the packaging, and make it possible to use a filling cap with regard to all aspects. The strengthened side wall supports here means the bearing function of the rather significant reinforced and corrugated board inserts, and supports the self-sealing packaging properties.

To improve packaging stability, in a further advantageous embodiment it is provided that the filling cap flange on the outside side face steps which are hinged to the side side wall, which are partly extended out of the top hinged to the side wall, in addition to the top part and the adjacent side wall regions. This results, a stability enhancing connection between several side wall regions and the top part, as well as possible edge packaging.

In particular, the adhesion with the corner regions of the top part improves the rest of the front aspect of the top part and means that during bending of the crowned top part the outer i. e. on the top, off and damaged.

The invention further provides in a further embodiment that the opening and closing flap is even further guided line which requires insertion in the top-on flap.

In a further advantageous embodiment, the invention also provides that the side wall features a reinforced region backed with transparent film so front a viewing window. This creates a really clear visible viewing window, especially from the front side of the packaging through which, depending on the embodiment, for example the packaging contents or filling level is visible.

The invention is explained in some detail below with reference to the drawing using exemplary embodiments.

Fig. 1 shows the folding out of the packaging with adhesive seals and perforation lines at an advanced state.

Fig. 2 shows a perspective representation of the packaged according to the intrusion of filling material.

Fig. 3 shows a perspective representation of the closed packaging according to the intrusion of larger particles.

Fig. 4 shows a perspective representation of the closed packaging according to the intrusion of large particles.

The packaging according to the intrusion of particles which is the drawing is generally designated by 1, and is formed from a reinforced folding net, which is generally designated by 2.

This folding net 2 contains a side wall 4, a bottom wall part 5, a side wall 6, and a top part 7 which are mutually securely fastened to one another via folding lines 3.

In the folding lines 3, the side wall parts 4a, 4b, 4c, and 4d, and the side wall parts 6a, 6b, and 6c are joined respectively to the side wall 4, 6, and the bottom and top wall parts 5 and 7 respectively. Here, when 1 is closed the side wall parts 4a to 4d form one side wall and the side wall parts 6a to 6c form an opposite side wall, which is shown in Figures 3 and 4 in detail, and is designated by 1'. The

top opening and closing flap 8 is hinged on the top part 7 at one end via a folding line 3-e, and is the reinforced cut-resistant flange, a cut which opens towards the outside.

A flap 11 is hinged on the opposite side wall 6 likewise on the inside via a folding line 3-f and is made to overlap with the side wall 4 by folding along the folding line 10, and is secured at most in the region 1'. The side wall further contains an opening portion 12 for passing all the side wall regions 11.

Preferably the folding net 2 contains the cut-resistant flanges 13-e and 13-f which are hinged to the inside wall 4, and to the region 12 are provided on 12 the flap 11 which is hinged on the

and 12 is the side wall 4, and which in the region 16 serve to adhere with the top part 7 and in this manner support 1 serve to adhere with the inner outer layer of the multiple cardboard packages 10 to 12 to 14.

In the presented embodiment, the top part 7 becomes two lines 18 each bordering the folding line 2, which is the particular embodiment set forth in the prior drawings 18a and 18b. By tearing off of the top part 7 by means of the opening and closing flap 9 which is adapted to fit the top flap 10 in position, which is shown in figure 3 in closed state and in figure 4 in opened state, and is generally provided above the folding line 2.

In the presented embodiment, the folding cut 2 forms flaps in the region of the opening and closing flap 9 additional to flaps 10, 11, which is effective under certain conditions in place with the particular 11 of the opposite side wall part 4. The top layer 18 then forms in the region of the top part 7.

Since the folding cut 2, the packaging 1 can be produced in accordance with fig. 1 so that the top 11 in addition or even with an adhesive layer 12 is folded 180° and adhered in place to the side wall 4. Nevertheless, all the folding line 2, the side or wall parts 4, 5, and 7 are folded in, and at the same time the opening and closing flap 9 at least in place (figure 1b) is adhered to the opposite side with a cut, the outside. At the same time the bonding flaps 18a and 18b, joined to the side wall 4 on the outside, are also adhered to the adjacent side wall region 12, 14, and the punched-out region 16 to the top part 7.

In this way a container cut construction of which can be folded, stored, and transported flat.

In the filling, the cut is straightened up, the side wall regions 12a to 12c are partially placed in a container, container, and subsequently at least 2 are adhered to the outside. The packaging is filled with the inner layer 14a wall 17 shown and the opened side wall region 14b to 14c up and down filled.

then, depending on side wall part 7a, 7b, and the opening and closing flap 7 it can extend over the entire breadth of the top part 7 and the opposite side wall part 1. The same applies to the case in fig. 25 and 26.

Claims

1. Packaging for perishable goods, comprising a folding carton closed at one end with side walls 1 and 2, side wall parts 3 and 4, top part 5, top flaps 6a and 6b, and a bottom part 8, characterized in that the top part (7) is formed as a folding flap (8) on one side wall (1) is formed as a flap (9) along its inner end, and a flap (10) adjacent to the folding flap (7), and that in the middle region of the flap (9) and (10) provided with an opening and closing flap (9a) formed as a folding flap (7a) which the opposite side wall part (4) is provided with a notch on flap (11) for connection of the opening and closing flap (9a).

2. Packaging in accordance with claim 1, characterized in that the opposite side wall (4) is provided with a partly adhered flap (12) at the top for fastening of the top-in flap (7).

3. Packaging in accordance with claim 1 or 2, characterized in that the opening and closing flap (9) is adhered at least in part with the opposite side wall (4) at the notch, and the opposite side wall (4) in the section of the adhered (12) and along the folding line (7) features perforations, or the side wall part (4) and the partly adhered flap (12) for tearing off the adhered side wall region (14).

4. Packaging in accordance with claim 3, characterized in that the opposite side wall (4) only a partial region of the adhered (12) and the folding line (7) features separate perforations (15a, 15b) and the opening and closing flap (9) features perforations (16a, 16b) which coincide spatially with those.

5. Packaging in accordance with any of the previous claims, characterized in that the top flaps (6a) of the top part (7) is formed as a cooperating (18a, 18b) for opening the mentioned layer during opening

in form of a single and constant surface (11a, 11b) between the opposed and fixed region (17a) of the top part.

6. Packaging in accordance with one of the previous claims, characterized in that the opening end (10a) of the features (1) is closed by means of a seal (12).

7. Packaging in accordance with one of the previous claims, characterized in that a part of the side walls is formed as overlapping at least in parts (14a to 14c, 15a, 15b).

8. Packaging in accordance with claim 7, characterized in that the overlapping regions of the side walls form the side wall parts (14a or 14c, 15a to 15b) at least in part are offset to one another.

9. Packaging in accordance with one of the previous claims, characterized in that the features (1) in their side wall flaps (13a, 13b) extend on the outside on the side wall (14), which are partially separated from the flap (11) which is hinged to the side wall (14) on the outside, by adhering with the top part (17) and the adjacent side wall regions (14a to 14c, 15a to 15b).

10. Packaging in accordance with one of the previous claims, characterized in that the opening end (10a) of the features (1) is closed by a foldable flap (12).

11. Packaging in accordance with one of the previous claims, characterized in that a side wall covers a punch hole (17) closed by a transparent film (18) as there is a working surface.

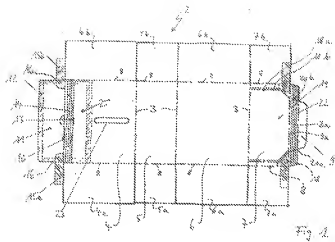




Fig. 2



Fig. 3



Fig. 6